

Claims

[c1] What is claimed is:

1.A method for phase matching between a first element and a second element by detecting a magnetic flux, the method comprising:

positioning the first element and the second element;
providing a magnetic flux generator for generating a magnetic flux between the first and second elements;
providing a magnetic sensor for detecting the magnetic flux between the first and the second elements; and
adjusting a relative position of the first and the second elements until the magnetic flux detected by the magnetic sensor reaches a predetermined value.

[c2] 2.The method of claim 1 wherein the magnetic flux generator is a magnet.

[c3] 3.The method of claim 1 wherein the magnetic sensor is a Hall element for converting the magnetic flux into a corresponding voltage signal.

[c4] 4.The method of claim 3 further comprising providing an amplifier for amplifying the voltage signal outputted from the Hall element.

- [c5] 5.The method of claim 1 wherein the magnetic sensor is a magnetic resistance device (MR device) having a resistance that changes according to a magnitude of the magnetic flux.
- [c6] 6.The method of claim 1 wherein the magnetic sensor is a magnetic diode, and a current flowing through the magnetic diode changes according to a magnitude of the magnetic flux.
- [c7] 7.The method of claim 1 wherein the first element is a screwdriver and the second element is a screw.
- [c8] 8.The method of claim 7 wherein the screw is installed on a metal plate.
- [c9] 9.The method of claim 8 wherein the magnetic flux generator is positioned on the metal plate and the magnetic sensor is set on one end of the screwdriver.
- [c10] 10.The method of claim 1 wherein the magnetic flux generator is set on one end of the second element and the magnetic sensor is set on one end of the first element.
- [c11] 11.The method of claim 1 wherein the magnetic flux generator is set on one end of the first element and the magnetic sensor is set on one end of the second ele-

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